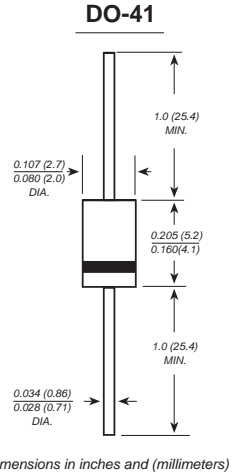


### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-41 molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.012 ounce, 0.33 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

|   | SYMBOLS         | 1N<br>4001  | 1N<br>4002 | 1N<br>4003 | 1N<br>4004 | 1N<br>4005 | 1N<br>4006 | 1N<br>4007 | UNITS              |
|---|-----------------|-------------|------------|------------|------------|------------|------------|------------|--------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | VOLTS              |
| Maximum RMS voltage   | $V_{RMS}$       | 35          | 70         | 140        | 280        | 420        | 560        | 700        | VOLTS              |
| Maximum DC blocking voltage   | $V_{DC}$        | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | VOLTS              |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$         | $I_{(AV)}$      | 1.0         |            |            |            |            |            |            | Amp                |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)    | $I_{FSM}$       | 30.0        |            |            |            |            |            |            | Amps               |
| Maximum instantaneous forward voltage at 1.0A   | $V_F$           | 1.1         |            |            |            |            |            |            | Volts              |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=100^\circ\text{C}$ | $I_R$           | 5.0<br>50.0 |            |            |            |            |            |            | $\mu\text{A}$      |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 15.0        |            |            |            |            |            |            | pF                 |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 50.0        |            |            |            |            |            |            | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range  | $T_J, T_{STG}$  | -65 to +175 |            |            |            |            |            |            | $^\circ\text{C}$   |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

